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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/215, 788 12/21/98 COFFMAN

J 21936435X00

EXAMINER

HUNG H. BULL
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1300 N. 17TH STREET
SUITE 1800
ARLINGTON VA 22209

TM02/0823

PRIETO, B	ART UNIT	PAPER NUMBER
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2152
DATE MAILED:

08/23/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Advisory Action	Application No.	Applicant(s)
	09/215,788	COFFMAN ET AL.
Examiner	Art Unit	
B. PRIETO	2152	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

THE REPLY FILED 10 August 2001 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) The period for reply expires _____ months from the mailing date of the final rejection.

b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee under 37 CFR 1.17(a) is filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. The proposed amendment(s) will not be entered because:

- (a) they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) they raise the issue of new matter (see Note below);
- (c) they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. Applicant's reply has overcome the following rejection(s): _____.

4. Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. The a) affidavit, b) exhibit, or c) request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached supplemental advisory.

6. The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. For purposes of Appeal, the proposed amendment(s) a) will not be entered or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: None.

Claim(s) objected to: None.

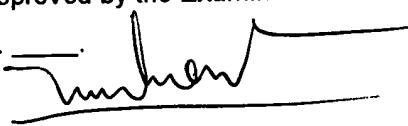
Claim(s) rejected: 1-28.

Claim(s) withdrawn from consideration: _____.

8. The proposed drawing correction filed on _____ is a) approved or b) disapproved by the Examiner.

9. Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.

10. Other: see attached supplemental advisory action.


LE HIEN LUU
PRIMARY EXAMINER

Supplemental Advisory Action

1. This communication is in response to Amendment After-final filed 08/10/01, claims 1-28 remain pending.
2. It is argued prior art of record, Heil does not teach (A) claim (1) limitation, specifically, “an input/output platform (IOP) access module for providing input/output device access between a host system and another system”.
3. It is argued prior art of record, Heil does not teach (B) claim (23) limitation, specifically, “a process of establishing a service connection to a local input/output platform (IOP) connected to a local bus using a system driver module.
4. It is argued prior art of record, Heil does not teach (C) claim limitation, specifically, “creating a direct call path between the local Transport and the Remote Transport”.
5. In response to A; IOP access module according to Applicant’s specification an (IOP) comprises and I/O processor, a device driver module which resides on an interface with a particular controller and storage devices, where the device driver is responsible control and data transfer of the storage devices (see, page 9, lines 11-17, page, *lines 2-5*), claim recites, “an input/output platform (IOP) access *module* for providing input/output device access between a host system and another system”;

Heil teaches HBA modules adapt (connects) a host computer system to an I/O device... host computer system (e.g., PCI, ISA, etc.) are adapted for exchange with a bus specific to the I/O device (e.g., SCSI, Fibre channel, LAN, etc.)... blocks of data stored within the plurality of storage devices in the cluster (storage devices), and circuits and software for searching the directory to determine whether to locally or remotely retrieve blocks of data stored. ...HBA module operable to establish and maintain communications with at least one other host bus adapter to query and request another host bus adapter to retrieve and transfer I/O requested data blocks from a storage subsystem within said clustered computing network. (col 3/lines 66-col 4/line 20). HBAs in the same system can communicate as peers over the system’s PCI bus in accordance with the intelligent I/O standard (hereinafter referred to as the I₂O standard) ... (col 4/lines 21-29)... each HBA driver utilizes the I₂O protocol, which allows peer-to-peer communication to local and remote storage channels, within a node, and in a second embodiment, local storage channels, within a node, are supported by one HBA, and the remote storage channel, within a node, is supported by a separate HBA (abstract).

7. In response to B;

Heil teaches where the HBA host drivers (abstract) are configured with embedded intelligent software I₂O standard for developing intelligent device drivers, ... (col 10/lines 29-42, configured as host driver module to access local disk 118, col 6/lines 65-67, configured as host driver service modules, col 10/lines 43-50), means wherein configuration software allow the HBA 117, 126 to make the decision whether to satisfy a block I/O request locally or remotely... means for locating local and remote blocks within the cluster's drives, ... managing means coordinates the retrieval of data over a cluster with logically shared disks. (col 10/line 65-col 11/line 11); HBA 180 processes I/O requests directed to the local drives 118. The front-end interface 171 is a PCI-to-PCI Bus bridge that connects, via PCI bus 117.4, various peripheral I/O devices, such as the local drives 118, to centralized PCI bus 116.5.

8. In response to C;

claim recites; a modules means (Remote Transport) which provides an interface to said computer network, a module (Connection Manager) which establishes connection services with remote system on said computer network and coordinated functions responsible for creating a direct call path between the module which communicates with the device driver module and the module which provides an interface to said computer network to provide access to said storage devices.

Heil teaches where the front-end interface 102 is a PCI-to-PCI Bus bridge that connects, via PCI bus 117.6 to Fibre Channel Chip 120, to a centralized system PCI bus 116.5. Front-end interface 102 is connected to embedded Host-to-PCI Bus bridge 101 via PCI bus 117.6. The Host-to-PCI Bus bridge 101 adapts the PCI bus 117.6 signals and internal bus 117.3 signals to allow communications with the embedded HBA intelligence, (col 6/lines 65-col 7/line 8); The HBA is operable to establish and maintain communications with at least one other host bus adapter to query and request another host bus adapter to retrieve and transfer I/O requested data blocks from a storage subsystem within said clustered computing network via an established communication medium channel, (col 4/lines 15-29, Fig. 1, connection between interfaces 120, 122, linked via 121); establishing a peer to-peer connection over the communication channel, col 11/lines 45-65, established connection is a point-to-point dedicated service, col 8/line 24-39); discloses as background wherein in a logically shared disk architecture storage devices are accessed by non-local computers of the cluster via existing network interfaces interconnecting the computers of the cluster, wherein each additional computer has access to all storage in the cluster either locally or via existing network connections among the computers of the cluster (col 2/lines 66-col 3/line 12), ... wherein files may be distributed throughout a cluster's storage subsystem by storing the files on remote storage subsystems, wherein software executed by the host coordinates the communications between the host computer requesting the file and the local or remote storage subsystem containing the file, this software executed by the host is implemented within each host's operating system or can be a software layer operating on each host to coordinate access to the files (col 2/lines 65-col 2/line 9);

9. Applicant's arguments filed 08/10/01 have been fully considered but they are not persuasive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Prieto, B.** whose telephone number is **(703) 305-0750**. The Examiner can normally be reached on Monday-Friday from 6:30 to 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, **Mark H. Rinehart** can be reached on **(703) 305-4815**. The fax phone number for the organization where this application or proceeding is assigned is **(703) 308-6606**. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is **(703) 305-3800/4700**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
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or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

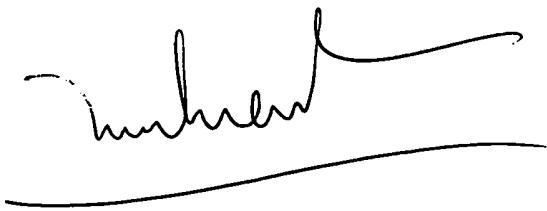
(703) 305-7201 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Fourth Floor (Receptionist), further ensuring that a receipt is provided stamped "TC 2100".


B. Prieto

Patent Examiner

August 21, 2001



LE HIEN LUU
PRIMARY EXAMINER